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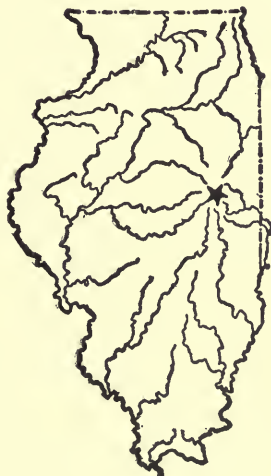
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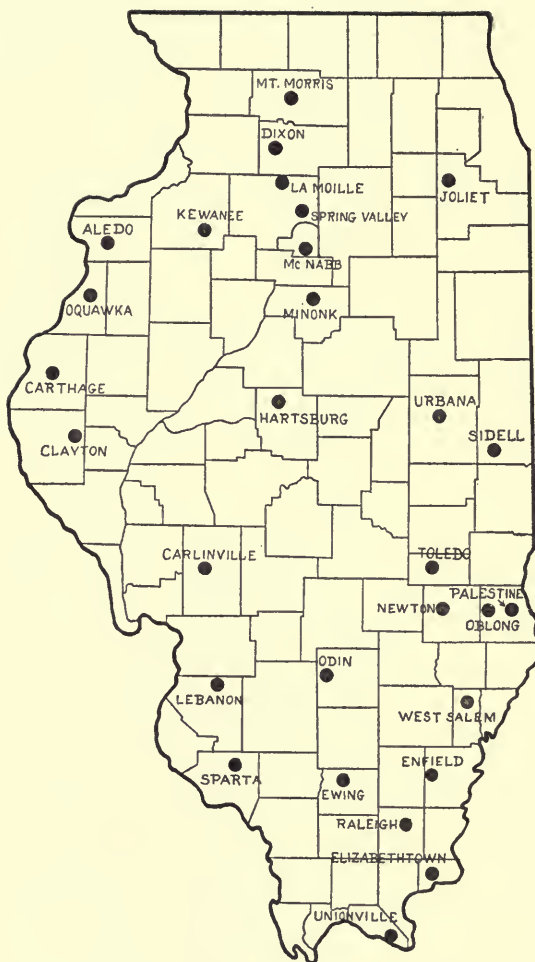
BULLETIN No. 280

CROP YIELDS FROM ILLINOIS SOIL
EXPERIMENT FIELDS IN 1925

By F. C. BAUER



URBANA, ILLINOIS, AUGUST, 1926



Location of Experiment Fields from Which Data
are Presented in this Bulletin

CROP YIELDS FROM ILLINOIS SOIL EXPERIMENT FIELDS IN 1925

By F. C. BAUER, Chief Soil Experiment Fields

The ILLINOIS AGRICULTURAL EXPERIMENT STATION for a number of years has conducted field investigations in all parts of the state to test the effectiveness of various soil treatments on yields of farm crops. The complete results from all these fields up to and including 1924 are reported in Bulletin 273. It is the purpose to keep this record up to date with the publication each year of the current results. The present bulletin is in the nature of such an annual supplement, giving the 1925 crop yields for the major investigations conducted on these fields.

In both these publications the figures are presented as a matter of record, without comment or discussion. In a broad way, of course, the results speak for themselves and carry certain definite lessons to those who have been following the soil investigations of the Station. Discussions of these investigations have appeared from time to time in former Station publications, and further discussions of an interpretative nature will appear in future publications.

The results reported in the following tables are for the individual fields arranged alphabetically, rather than by location or by soil types. The location of these fields in the state can be ascertained by referring to the accompanying map.

All yields, except those in parentheses, indicate bushels an acre. Parentheses are used to denote tons of hay.

EXPLANATION OF SYMBOLS

In some of the following tables symbols have been used instead of words, to indicate soil treatments:

R=Residues, consisting of cornstalks and straw in some cases. In addition, a green manure crop of biennial sweet clover is seeded in small grain, usually wheat, and the spring growth is plowed under for corn. On plots without limestone this sweet clover survives on only a few of the fields.

L=Limestone, applied in amounts sufficient to grow clovers and alfalfa.

rP=Rock phosphate

K=Potassium salts

aP=Acid phosphate

M=Stable manure

bP=Bone meal

O=Check plot

sP=Slag phosphate

TABLE 1.—ALEDO FIELD

Serial plot No.	Soil treatment	Series 100 Wheat	Series 200 Oats	Series 300 Corn	Series 400 Corn
1	None.....	24.2	54.4	79.4	65.0
2	Manure.....	24.3	65.0	101.4	88.2
3	Manure, lime.....	25.0	68.4	101.8	95.6
4	Manure, lime, rock phosphate.....	35.8	70.3	106.6	101.2
5	None.....	19.3	60.4	83.0	73.4
6	Residues.....	19.5	72.5	83.8	83.8
7	Residues, lime.....	26.2	75.0	86.6	83.4
8	Residues, lime, rock phosphate.....	40.2	78.1	92.8	87.4
9	Residues, lime, rock phosphate, kainit..	43.5	81.3	96.4	102.4
10	None.....	18.7	67.8	76.8	72.6

TABLE 2.—ALEDO FIELD: COMPARATIVE PHOSPHATE EXPERIMENT

Serial plot No.	Series 500		Series 600		Series 700		Series 800	
	Soil		Soil		Soil		Soil	
	treatment	Oats	treatment	Oats	treatment	Oats	treatment	Oats
1	R.....	63.9	R.....	64.4	R.....	66.6	R.....	45.0
2	RbP.....	75.0	RaP.....	76.1	RrP.....	70.3	RsP.....	66.3
3	RLbP.....	73.4	RLaP.....	78.1	RLrP.....	67.8	RLsP.....	66.7
4	RL.....	64.5	RL.....	64.1	RL.....	66.3	RL.....	53.9

TABLE 3.—CARLINVILLE FIELD

Serial plot No.	Soil treatment	Series 100 Oats	Series 200 Wheat	Series 300 Clover- alfalfa	Series 400 Corn
1	None.....	28.9	18.1	(1.04)	58.1
2	Manure.....	39.5	28.6	(2.12)	71.6
3	Manure, lime.....	47.0	34.3	(5.11)	75.2
4	Manure, lime, rock phosphate.....	44.8	34.9	(6.43)	71.0
5	None.....	27.0	22.9	(2.49)	57.6
6	Residues.....	33.9	22.6	(2.39)	60.6
7	Residues, lime.....	55.9	27.3	(4.54)	59.8
8	Residues, lime, rock phosphate.....	57.0	34.5	(5.64)	59.9
9	Residues, lime, rock phosphate, kainit...	51.3	36.4	(6.28)	76.1
10	None.....	27.5	19.9	(2.24)	60.5

TABLE 4.—CARTHAGE FIELD

Serial plot No.	Soil treatment	Series 100 Clover	Series 200 Oats	Series 300 Corn	Series 400 Wheat
1	None.....	(2.32)	28.8	28.8	21.7
2	Manure.....	(2.64)	43.9	44.5	32.7
3	Manure, lime.....	(3.12)	60.0	65.3	33.4
4	Manure, lime, rock phosphate.....	(3.22)	60.6	90.9	35.1
5	None.....	(2.33)	34.1	32.3	18.5
6	Residues.....	(2.62)	36.9	94.6	19.4
7	Residues, lime.....	(2.81)	60.0	101.2	30.8
8	Residues, lime, rock phosphate.....	(3.11)	65.5	103.1	33.0
9	Residues, lime, rock phosphate, kainit...	(3.16)	66.4	103.8	39.0
10	None.....	(2.13)	34.2	46.4	24.9

TABLE 5.—CARTHAGE FIELD: GYPSUM EXPERIMENT

Serial plot No.	Soil treatment	Series 500 Corn	Series 600		Series 700 Corn
			Oats	Stubble clover	
1	Residues, lime.....	72.8	41.6	(2.03)	76.0
2	Residues, lime, rock phosphate (100)....	93.0	44.7	(1.05)	69.8
3	Residues, lime, rock phosphate (100), gypsum (100).....	89.8	45.3	(1.10)	65.0
4	Residues, lime, rock phosphate (200)....	97.0	45.6	(1.07)	65.2
5	Residues, lime, rock phosphate (200), gypsum (200).....	86.8	45.3	(.85)	57.2
6	Residues, lime, rock phosphate (400)....	99.4	45.3	(.77)	71.4
7	Residues, lime, rock phosphate (400), gypsum (400).....	89.2	48.1	(.73)	60.8
8	Residues, lime.....	81.6	40.9	(.94)	68.4

TABLE 6.—CLAYTON FIELD

Serial plot No.	Soil treatment	Series 100 Clover	Series 200 Oats	Series 300 Corn	Series 400 Wheat	Series 400 Stubble clover
1	None.....	(1.37)	45.2	37.7	6.5	....
2	Manure.....	(1.69)	61.1	71.4	8.6	....
3	Manure, lime.....	(2.76)	68.1	92.8	16.7	....
4	Manure, lime, rock phosphate..	(2.86)	68.3	94.9	16.1	....
5	None.....	(1.36)	46.7	49.9	7.8	....
6	Residues.....	(1.15)	45.2	68.5	8.0	(.54)
7	Residues, lime.....	(1.41)	62.2	104.9	13.4	(.60)
8	Residues, lime, rock phosphate..	(1.66)	69.4	105.5	14.3	(1.35)
9	Res., lime, rock phos., kainit...	(1.88)	69.7	103.9	21.1	(1.56)
10	None.....	(1.42)	46.7	44.4	8.9	....

TABLE 7.—DIXON FIELD

Serial plot No.	Soil treatment	Series 100 Clover	Series 200 Oats	Series 300 Corn	Series 400 Wheat
1	None.....	(2.29)	45.0	55.8	10.7
2	Manure.....	(2.34)	60.6	85.0	25.2
3	Manure, lime.....	(2.25)	75.3	87.6	35.2
4	Manure, lime, rock phosphate.....	(2.30)	70.0	92.6	38.0
5	None.....	(2.10)	50.3	63.0	14.3
6	Residues.....	(1.02)	52.2	64.0	21.3
7	Residues, lime.....	(1.21)	55.9	79.6	29.2
8	Residues, lime, rock phosphate.....	(1.64)	71.9	81.0	36.0
9	Residues, lime, rock phosphate, kainit...	(1.80)	76.3	81.2	38.5
10	None.....	(2.13)	45.9	66.4	12.0

TABLE 8.—ELIZABETHTOWN FIELD

Serial plot No.	Soil treatment	Series 100 Wheat	Series 200 Corn	Series 300 Wheat	Series 400 Clover-timothy
1	None.....	4.8	1.7	11.5	(.36)
2	Manure.....	5.1	5.2	5.3	(.31)
3	Manure, lime.....	7.4	32.1	25.7	(1.01)
4	Manure, lime, rock phosphate.....	11.3	51.7	29.2	(1.22)
5	None.....	1.3	3.4	1.3	(.20)
6	Residues.....	1.1	17.4	1.4	(.26)
7	Residues, lime.....	7.3	53.1	14.8	(.79)
8	Residues, lime, rock phosphate.....	14.0	68.5	25.1	(.72)
9	Residues, lime, rock phosphate, kainit..	15.1	69.6	30.2	(1.09)
10	None.....	5.8	30.5	9.4	(.16)

TABLE 9.—ENFIELD FIELD

Serial plot No.	Soil treatment	Series 100 Clover-timothy	Series 200 Oats	Series 300 Corn	Series 400 Wheat
1	None.....	(0.00)	10.5	10.8	12.2
2	Manure.....	(0.00)	21.9	17.8	19.1
3	Manure, lime.....	(1.07)	26.7	35.0	31.8
4	Manure, lime, rock phosphate.....	(1.19)	24.4	33.7	27.9
5	None.....	(0.00)	11.9	11.7	14.2
6	Residues.....	(0.00)	13.3	15.9	14.9
7	Residues, lime.....	(.76)	22.8	26.2	28.6
8	Residues, lime, rock phosphate.....	(1.00)	23.1	34.4	30.8
9	Residues, lime, rock phosphate, kainit..	(1.29)	27.3	38.6	31.8
10	None.....	(0.00)	18.1	17.1	15.8

TABLE 10.—EWING FIELD

Serial plot No.	Soil treatment	Series 100 Clover- timothy	Series 200 Oats	Series 300 Corn	Series 400 Wheat
1	None.....	(.32)	15.0	14.1	8.8
2	Manure.....	(.38)	20.5	26.1	11.9
3	Manure, lime.....	(1.42)	49.7	46.5	41.7
4	Manure, lime, rock phosphate.....	(1.42)	53.8	52.3	39.2
5	None.....	(.38)	13.8	14.2	10.8
6	Residues.....	(.46)	12.7	21.2	13.6
7	Residues, lime.....	(1.24)	41.3	38.9	37.3
8	Residues, lime, rock phosphate.....	(1.22)	34.7	50.3	46.0
9	Residues, lime, rock phosphate, kainit..	(1.38)	52.8	59.5	49.3
10	None.....	(.42)	14.7	16.4	8.9

TABLE 11.—HARTSBURG FIELD

Serial plot No.	Soil treatment	Series 100 Wheat	Series 200 Oats	Series 300 Corn	Series 400 Corn
1	None.....	33.5	36.3	44.0	43.8
2	Manure.....	33.3	44.4	65.0	58.0
3	Manure, lime.....	29.2	44.1	77.2	66.2
4	Manure, lime, rock phosphate.....	33.5	44.4	71.4	65.0
5	None.....	24.8	42.8	59.6	50.0
6	Residues.....	31.7	44.1	68.6	79.6
7	Residues, lime.....	23.3	41.3	71.4	87.8
8	Residues, lime, rock phosphate.....	30.5	42.2	74.8	88.4
9	Residues, lime, rock phosphate, kainit..	33.2	42.5	73.8	82.8
10	None.....	30.3	40.6	55.2	49.2

TABLE 12.—JOLIET FIELD

Serial plot No.	Soil treatment	Series 100 Alfalfa	Series 200 Wheat	Series 300 Clover	Series 400 Oats	Series 500 Corn	Series 600 Corn
1	0.....	(.82)	10.3	(.49)	30.2	34.6	42.5
2	M.....	(1.44)	10.7	(.63)	39.1	39.0	55.1
3	ML.....	(2.36)	16.2	(.90)	38.8	49.9	56.5
4	MLrP.....	(3.29)	24.4	(1.13)	50.5	54.3	56.6
5	0.....	(.55)	8.0	(.35)	36.1	38.4	46.8
6	R.....	(.67)	7.9	(.53)	41.7	40.4	54.1
7	RL.....	(1.74)	14.8	(.57)	44.8	44.8	53.9
8	RLrP.....	(3.61)	31.8	(1.41)	53.9	50.4	55.0
9	RLrPK.....	(3.46)	39.2	(1.37)	53.8	56.2	56.9
10	0.....	(.54)	22.0	(.39)	30.9	35.6	45.0

TABLE 13.—KEWANEE FIELD

Serial plot No.	Soil treatment	Series 100 Clover	Series 200 Oats	Series 300 Corn	Series 400 Wheat
1	None.....	(.97)	55.0	56.8	23.4
2	Manure.....	(1.54)	75.8	70.8	24.0
3	Manure, lime.....	(1.51)	76.4	73.0	24.4
4	Manure, lime, rock phosphate.....	(1.61)	69.7	80.4	35.9
5	None.....	(1.31)	50.9	59.1	20.1
6	Residues.....	(.60)	58.4	61.8	23.4
7	Residues, lime.....	(.79)	63.6	68.0	29.2
8	Residues, lime, rock phosphate.....	(1.00)	74.7	82.6	35.9
9	Residues, lime, rock phosphate, kainit..	(1.05)	73.9	77.7	35.0
10	None.....	(1.79)	49.1	56.2	27.4

TABLE 14.—LAMOILLE FIELD

Serial plot No.	Soil treatment	Series 100 Wheat	Series 200 Oats	Series 300 Corn	Series 400 Corn
1	None.....	44.3	88.0	40.1	40.8
2	Manure.....	45.5	90.9	64.3	64.1
3	Manure, lime.....	44.1	80.9	64.6	69.4
4	Manure, lime, rock phosphate.....	45.6	76.4	64.8	72.4
5	None.....	37.0	68.3	54.0	58.8
6	Residues.....	47.5	73.8	63.6	64.3
7	Residues, lime.....	49.3	73.3	69.5	64.5
8	Residues, lime, rock phosphate.....	50.1	73.8	75.5	67.0
9	Residues, lime, rock phosphate, kainit..	47.2	68.1	78.6	67.9
10	None.....	34.3	58.1	39.0	47.3

TABLE 15.—LEBANON FIELD

Serial plot No.	Soil treatment	Series 100 Wheat	Series 100 Stubble clover	Series 200 Soybeans	Series 300 Corn	Series 400 Wheat
1	None.....	12.4	(0.00)	(.99)	30.9	26.2
2	Manure.....	19.8	(.33)	(1.84)	53.0	33.1
3	Manure, lime.....	23.9	(.87)	(1.98)	65.6	30.9
4	Manure, lime, rock phosphate..	25.3	(.93)	(1.86)	62.9	41.0
5	None.....	14.3	(0.00)	(1.02)	23.1	28.5
6	Residues.....	17.8	(0.00)	(1.04)	48.8	30.9
7	Residues, lime.....	27.4	(.74)	(1.43)	75.9	38.8
8	Residues, lime, rock phosphate..	24.4	(.83)	(1.51)	84.7	39.7
9	Res., lime, rock phos., kainit...	24.6	(1.18)	(1.87)	78.3	43.2
10	None.....	13.3	(0.00)	(1.41)	40.6	29.2

TABLE 16.—MCNABB FIELD

Serial plot No.	Soil treatment	Series 100 Oats	Series 200 Corn	Series 300 Soybeans	Series 400 Wheat
1	Residues.....	75.0	70.8	(1.50)	26.7
2	Residues, rock phosphate.....	81.9	75.6	(1.08)	34.0
3	None.....	81.6	69.0	(1.15)	28.3
4	Manure, rock phosphate.....	87.8	77.2	(1.48)	36.8
5	Manure.....	84.1	72.6	(1.34)	29.2

TABLE 17.—MINONK FIELD

Serial plot No.	Soil treatment	Series 100 Wheat	Series 200 Oats	Series 300 Corn	Series 400 Corn
1	None.....	29.2	65.3	60.1	42.2
2	Manure.....	28.3	68.6	70.5	68.7
3	Manure, lime.....	29.8	66.1	73.5	68.8
4	Manure, lime, rock phosphate.....	28.3	65.6	77.3	74.4
5	None.....	29.2	66.6	49.1	43.9
6	Residues.....	37.7	71.6	63.7	58.9
7	Residues, lime.....	30.2	68.6	61.4	74.4
8	Residues, lime, rock phosphate.....	30.0	66.4	66.2	71.0
9	Residues, lime, rock phosphate, kainit..	25.5	70.3	61.6	70.9
10	None.....	16.2	57.3	31.8	43.2

TABLE 18.—MT. MORRIS FIELD

Serial plot No.	Soil treatment	Series 100 Clover	Series 200 Oats	Series 300 Corn	Series 400 Wheat
1	None.....	(1.73)	55.2	65.9	19.4
2	Manure.....	(2.13)	72.0	74.6	28.0
3	Manure, lime.....	(2.26)	88.8	79.9	42.2
4	Manure, lime, rock phosphate.....	(2.15)	84.2	85.9	44.5
5	None.....	(1.99)	53.3	58.8	20.9
6	Residues.....	(.74)	69.1	63.8	23.3
7	Residues, lime.....	(.82)	94.7	85.4	36.8
8	Residues, lime, rock phosphate.....	(.82)	90.9	87.0	42.5
9	Residues, lime, rock phosphate, kainit..	(.86)	97.2	91.0	42.5
10	None.....	(2.13)	51.1	50.1	21.8

TABLE 19.—NEWTON FIELD

Serial plot No.	Soil treatment	Series 100 Soybeans	Series 200 Corn	Series 300 Wheat	Series 400 Corn
1	None.....	(1.43)	6.8	.5	4.6
2	Manure.....	(1.48)	16.0	0.0	15.2
3	Manure, lime.....	(2.05)	34.2	12.3	28.2
4	Manure, lime, rock phosphate.....	(2.13)	36.8	19.2	19.0
5	None.....	(1.33)	6.6	.5	5.0
6	Residues.....	(1.13)	10.8	.3	5.8
7	Residues, lime.....	(1.60)	31.4	11.3	4.2
8	Residues, lime, rock phosphate.....	(2.03)	30.2	15.0	1.2
9	Residues, lime, rock phosphate, kainit...	(1.90)	37.0	24.0	0.0
10	None.....	(1.10)	2.8	.5	2.8

TABLE 20.—NEWTON FIELD: LIME EXPERIMENT

Serial plot No.	Soil treatment	Limestone fineness (meshes per inch)	High-calcium lime			Dolomitic lime		
			Series 500 Corn	Series 700 Sweet clover	Series 900 Wheat	Series 600 Corn	Series 800 Sweet clover	Series 1000 Wheat
1	RrPK	.....	17.6	0.00	4.2	22.6	0.00	5.2
2	RrPKL	4 down....	24.8	1.23	4.5	28.2	1.13	8.0
3	RrPKL	4 to 10....	20.0	1.63	6.5	42.4	1.43	9.3
4	RrPKL	10 down....	19.6	1.40	7.0	14.0	1.32	10.5
5	RrPKL	50 down....	11.6	1.45	9.5	0.0	1.13	10.2
6	RrPKL	Burnt.....	2.6	1.25	9.3	0.0	1.02	11.8
7	RrPK	.....	3.8	0.00	3.5	0.0	0.00	8.2
8	RrPKL	4 down....	10.2	1.57	8.7	0.0	1.48	13.0
9	RrPKL	4 to 10....	10.2	1.32	8.2	0.0	1.30	12.8
10	RrPKL	10 down....	17.6	1.40	5.3	0.0	1.35	12.3
11	RrPKL	50 down....	20.6	1.92	5.3	0.0	1.40	8.0
12	RrPKL	Burnt.....	23.2	2.60	5.5	1.2	1.57	6.5
13	RrPK	.....	10.0	0.00	4.5	2.4	0.00	3.0
14	RrPKL	4 down....	33.2	3.07	5.7	9.8	1.75	8.2
15	RrPKL	4 to 10....	32.8	2.70	6.0	13.6	1.52	13.8
16	RrPKL	10 down....	29.2	2.47	8.2	12.0	2.38	14.0
17	RrPKL	50 down....	24.0	2.27	8.0	15.4	1.92	10.3
18	RrPKL	Burnt.....	23.4	3.07	12.5	17.0	2.67	15.3
19	RrPKL	.....	14.4	0.00	6.3	28.8	0.00	9.7

Note.—Limestone is applied to Plots 2 to 6 at the rate of 500 pounds an acre a year; to Plots 8 to 12 at the rate of 1,000 pounds; and to Plots 14 to 19 at the rate of 2,000 pounds.

TABLE 21.—OBLONG FIELD

Serial plot No.	Soil treatment	Series 100 Soybeans	Series 200 Soybeans	Series 300 Corn	Series 400 Wheat
1	None.....	(.94)	(1.73)	12.6	1.8
2	Manure.....	(.95)	(1.68)	32.8	4.8
3	Manure, lime.....	(1.02)	(3.35)	50.2	22.0
4	Manure, lime, rock phosphate.....	(1.52)	(3.25)	49.2	24.7
5	None.....	(.82)	(1.13)	24.4	4.0
6	Residues.....	(.91)	(1.23)	30.2	8.7
7	Residues, lime.....	(1.36)	(3.09)	38.6	18.5
8	Residue, lime, rock phosphate.....	(1.39)	(3.03)	47.2	26.3
9	Residues, lime, rock phosphate, kainit..	(1.62)	(3.45)	58.8	32.7
10	None.....	(.80)	(2.56)	26.0	6.5

TABLE 22.—ODIN FIELD

Serial plot No.	Soil treatment	Series 100 Sweet clover	Series 200 Corn	Series 300 Soybeans	Series 400 Wheat
Land Not Tile-drained					
1	None.....	.44	23.1	(.96)	6.3
2	Residues.....	.24	31.9	(.98)	10.7
3	Residues, lime.....	1.44	26.6	(1.34)	26.1
4	Residues, lime, bone meal.....	.93	24.8	(1.19)	27.1
5	Res., lime, bone meal, potas. sulfate....	2.28	43.7	(1.52)	27.5
Land Tile-drained					
6	None.....	0.00	16.2	(.74)	.8
7	Residues.....	.44	18.1	(.68)	9.0
8	Residues, lime.....	2.53	28.2	(1.09)	21.6
9	Residues, lime, bone meal.....	2.24	31.6	(1.44)	27.3
10	Res., lime, bone meal, potas. sulfate....	2.38	39.9	(1.46)	23.7

TABLE 23.—ODIN FIELD: COMPARATIVE PHOSPHATE EXPERIMENT

Serial plot No.	Soil treatment	Light lime		Heavy lime	
		Series 500 Wheat	Series 600 Corn	Series 700 Wheat	Series 800 Corn
1	Residues, lime, kainit, bone meal.....	15.2	24.0	24.2	39.8
2	Residues, lime, kainit.....	8.7	25.8	25.5	42.6
3	Residues, lime, kainit, acid phosphate...	12.3	30.4	20.8	41.0
4	Residues, lime, kainit, rock phosphate..	14.5	18.0	22.0	42.2
5	Residues, lime, kainit.....	7.3	15.6	17.3	44.2
6	Residues, lime, kainit, slag phosphate...	14.5	11.6	23.0	44.0

TABLE 24.—ODIN FIELD: SWEET CLOVER ROTATION EXPERIMENT

Rotation	Soil treatment	Corn	Soybeans	Wheat	Sweet clover
Three-year	Residues, lime, bone meal.....	34.6	(1.25)	3.3	....
Four-year	Residues, lime, bone meal.....	29.7	(2.67)	22.2	2.67

TABLE 25.—OQUAWKA FIELD

Serial plot No.	Soil treatment	Series 100 Corn	Series 200 Alfalfa	Series 300 Rye	Series 400 Soybeans	Series 500 Wheat	Series 600 Soybeans
1	0.....	47.0	(0.00)	9.4	(1.08)	.5	(1.23)
2	M.....	59.8	(.26)	8.2	(1.13)	4.6	(1.43)
3	ML.....	73.7	(1.07)	9.5	(1.18)	9.3	(2.28)
4	MLrP.....	81.7	(1.02)	6.3	(1.25)	9.5	(2.15)
5	0.....	52.8	(.19)	4.1	(1.08)	3.3	(1.05)
6	R.....	44.0	(.33)	5.2	(1.13)	5.1	(1.15)
7	RL.....	66.5	(1.12)	6.7	(1.18)	8.3	(1.88)
8	RLrP.....	70.4	(.95)	7.6	(1.23)	8.8	(1.78)
9	RLrPK.....	68.4	(.84)	10.7	(1.05)	11.2	(1.55)
10	0.....	52.3	(0.00)	9.3	(.88)	6.7	(.75)

TABLE 26.—PALESTINE FIELD

Serial plot No.	Soil treatment	Series 100 Corn	Series 200 Wheat	Series 300 Sweet clover	Series 400 Rye	Series 500 Soybeans
1	None.....	14.2	8.5	.45	15.5	(.74)
2	Manure.....	19.0	11.0	1.38	14.1	(.85)
3	Manure, lime.....	12.4	15.5	5.78	15.2	(1.16)
4	Manure, lime, rock phosphate..	12.4	14.5	7.22	16.3	(1.22)
5	None.....	9.2	9.8	.28	13.2	(.95)
6	Residues.....	10.0	11.3	1.28	12.9	(1.09)
7	Residues, lime.....	.4	25.8	5.83	18.8	(1.28)
8	Residues, lime, rock phosphate..	.9	29.8	5.33	18.2	(1.28)
9	Res., lime, rock phos., kainit...	1.8	26.8	4.88	18.4	(1.26)
10	None.....	11.4	10.0	.55	13.2	(1.00)

TABLE 27.—RALEIGH FIELD

Serial plot No.	Soil treatment	Series 100 Clover- timothy	Series 200 Oats	Series 300 Corn	Series 400 Wheat
1	None.....	(0.00)	12.8	17.4	1.8
2	Manure.....	(.44)	25.9	29.0	7.3
3	Manure, lime.....	(2.24)	44.7	33.2	25.5
4	Manure, lime, rock phosphate.....	(2.37)	46.9	37.0	26.7
5	None.....	(.41)	17.5	11.8	3.5
6	Residues.....	(.32)	22.5	20.0	5.8
7	Residues, lime.....	(1.00)	32.2	37.2	22.0
8	Residues, lime, rock phosphate.....	(1.68)	40.3	54.0	26.7
9	Residues, lime, rock phosphate, kainit..	(1.98)	42.5	52.8	28.2
10	None.....	(0.00)	15.6	24.4	9.2

TABLE 28.—SIDELL FIELD

Serial plot No.	Soil treatment	Series 100 Oats	Series 200 Alfalfa	Series 300 Corn ¹	Series 400 Wheat	Series 500 Clover
1	None.....	22.5	(1.10)	52.7	37.6	(1.84)
2	Manure.....	25.6	(1.64)	51.1	42.8	(2.27)
3	Manure, lime.....	27.3	(3.74)	56.9	41.3	(1.88)
4	Manure, lime, rock phosphate .	33.6	(5.56)	55.8	42.5	(2.13)
5	None.....	14.4	(.68)	24.9	32.2	(1.26)
6	Residues.....	20.3	(1.15)	35.1	33.0	(.64)
7	Residues, lime.....	28.9	(3.68)	34.2	30.8	(.73)
8	Residues, lime, rock phosphate.	36.9	(4.78)	48.2	32.0	(1.17)
9	Res., lime, rock phos., kainit...	38.3	(5.89)	54.9	31.3	(1.35)
10	None.....	28.1	(2.02)	41.1	25.8	(1.03)

¹Manure was applied to Plot 301 by mistake in the spring of 1925.

TABLE 29.—SPARTA FIELD

Serial plot No.	Soil treatment	Series 100 Soybeans	Series 200 Corn	Series 300 Sweet clover	Series 400 Wheat
1	None.....	(.72)	26.8	0.00	3.0
2	Manure.....	(.79)	39.2	0.00	6.7
3	Manure, lime.....	(1.71)	53.6	3.18	20.7
4	Manure, lime, rock phosphate.....	(1.85)	62.0	1.98	25.7
5	None.....	(.65)	19.2	0.00	7.8
6	Residues.....	(.88)	23.0	0.00	8.3
7	Residues, lime.....	(1.51)	48.8	2.27	24.7
8	Residues, lime, rock phosphate.....	(1.74)	51.4	2.83	26.5
9	Residues, lime, rock phosphate, kainit..	(1.85)	66.0	4.50	22.2
10	None.....	(1.07)	17.0	0.00	5.8

TABLE 30.—SPARTA FIELD

Serial plot No.	Soil treatment	Series 500 Cowpeas	Series 600 Timothy	Series 700 Wheat	Series 800 Corn
1	None.....	(1.13)	(.46)	10.8	15.0
2	Manure.....	(1.27)	(.86)	15.8	14.6
3	Manure, lime.....	(2.03)	(1.67)	28.3	58.2
4	Manure, lime, rock phosphate.....	(2.26)	(1.76)	38.2	68.0
5	Manure, lime, rock phosphate, kainit....	(2.82)	(1.50)	40.8	63.2
6	None.....	(1.87)	(.26)	9.2	20.6

TABLE 31.—SPRING VALLEY FIELD

Serial plot No.	Soil treatment	Series 100 Clover	Series 200 Oats	Series 300 Corn	Series 400 Wheat
A	Legumes, lime, acid phosphate.....	(.96)	35.9	46.0	31.8
B	Legumes, lime, rock phosphate.....	(.86)	35.0	51.0	33.3
1	None.....	(1.50)	43.4	45.0	33.2
2	Manure.....	(1.19)	47.2	53.2	40.2
3	Manure, lime.....	(1.11)	53.1	53.4	36.8
4	Manure, lime, rock phosphate.....	(1.04)	61.9	59.2	44.0
5	None.....	(1.33)	49.7	54.0	38.8
6	Residues.....	(.85)	46.9	54.8	39.8
7	Residues, lime.....	(.71)	48.1	59.8	40.0
8	Residues, lime, rock phosphate.....	(.81)	52.8	57.4	44.7
9	Residues, lime, rock phosphate, kainit....	(.78)	45.3	58.6	41.8
10	None.....	(1.11)	37.8	53.4	38.2

TABLE 32.—TOLEDO FIELD

Serial plot No.	Soil treatment	Series 100 Sweet clover	Series 200 Oat hay	Series 300 Corn	Series 400 Wheat
1	None.....	0.00	(.32)	26.0	7.5
2	Manure.....	0.00	(.39)	34.4	11.8
3	Manure, lime.....	3.83	(.90)	52.8	25.3
4	Manure, lime, rock phosphate.....	2.95	(.85)	52.0	27.8
5	None.....	0.00	(.17)	26.0	11.5
6	Residues.....	0.00	(.42)	26.6	18.7
7	Residues, lime.....	3.03	(.62)	40.8	23.3
8	Residues, lime, rock phosphate.....	2.15	(.97)	36.6	24.0
9	Residues, lime, rock phosphate, kainit....	3.83	(1.01)	51.0	33.7
10	None.....	.16	(.19)	22.8	3.7

TABLE 33.—UNIONVILLE FIELD

Serial plot No.	Soil treatment	Series 100 Soybeans	Series 200 Seed cotton (lbs.)	Series 300 Corn	Series 400 Oats ¹
1	None.....	(1.74)	260	14.2	11.6
2	Manure.....	(1.35)	450	16.0	13.1
3	Manure, lime.....	(1.89)	620	31.4	22.8
4	Manure, lime, rock phosphate.....	(1.81)	700	29.8	20.9
5	None.....	(1.00)	280	5.2	11.6
6	Residues.....	(1.19)	260	11.0	10.9
7	Residues, lime.....	(1.59)	310	39.6	17.5
8	Residues, lime, rock phosphate.....	(1.72)	510	41.4	25.3
9	Residues, lime, rock phosphate, kainit..	(1.88)	780	42.8	24.7
10	None.....	(1.00)	150	9.4	8.1

¹Oats grown as a substitute for wheat.

TABLE 34.—URBANA, DAVENPORT PLOTS: WEST HALF

Serial plot No.	Soil treatment	Series 100 Corn	Series 200 Alfalfa	Series 300 Wheat	Series 400 Clover	Series 500 Oats
1	None.....	62.6	(1.98)	17.7	(.60)	36.4
2	Residues.....	55.5	(1.83)	15.9	(.50)	39.3
3	Manure.....	65.0	(1.64)	21.6	(.82)	38.8
4	Residues, lime.....	55.8	(2.51)	32.0	(1.10)	38.5
5	Manure, lime.....	66.9	(2.38)	41.4	(.98)	42.8
6	Residues, lime, rock phosphate.	56.3	(4.21)	53.3	(1.21)	52.0
7	Manure, lime, rock phosphate..	63.0	(4.31)	50.0	(1.51)	49.4
8	Residues, lime, rock phosphate, potassium sulfate.....	58.2	(5.08)	48.4	(1.57)	53.3
9	Manure, lime, rock phosphate, potassium sulfate.....	66.0	(5.43)	48.2	(1.86)	54.3
10	Manure x 5, lime, rock phos- phate x 5.....	62.0	(5.78)	47.2	(1.74)	64.7

TABLE 35.—URBANA, DAVENPORT PLOTS: EAST HALF

Serial plot No.	Soil treatment	Series 100 Corn	Series 200 Alfalfa	Series 300 Wheat	Series 400 Clover	Series 500 Oats
1	None.....	61.8	(1.62)	13.8	(.80)	39.4
2	Residues.....	61.8	(1.63)	16.3	(.85)	35.1
3	Manure.....	73.1	(1.68)	26.3	(1.00)	38.4
4	Residues, lime.....	58.3	(2.71)	36.0	(.94)	39.5
5	Manure, lime.....	75.8	(2.97)	43.2	(.97)	48.4
6	Residues, lime, bone meal.....	58.8	(4.68)	45.8	(1.41)	53.5
7	Manure, lime, bone meal.....	73.8	(4.89)	53.5	(1.55)	52.8
8	Res., lime, bone meal, potas. sulf.	60.8	(4.82)	50.3	(1.56)	57.0
9	Man., lime, bone meal, potas. sulf.	72.7	(5.23)	47.3	(1.46)	55.4
10	Manure x 5, lime, bone meal x 5.	60.5	(5.65)	46.1	(1.74)	61.9

TABLE 36.—URBANA, MORROW PLOTS

Serial plot No.	Soil treatment	Plot 3 (Continu-ous corn) Corn	Plot 4 (Corn and oats ro-tation) Corn ¹	Plot 5 (Corn, oats, clover rotation) Corn
NW	None.....	15.4	25.6	40.2
SW	Manure, lime, rock phosphate.....	41.7	39.4	57.4
NE	None.....	22.9	27.8	43.9
SE	Manure, lime, bone meal.....	49.1	39.6	59.9

¹A sweet-clover green-manure crop is plowed down for corn in addition to the standard soil treatment.

TABLE 37.—URBANA, SOUTH FARM: NORTHWEST ROTATION
(Potatoes, corn, soybeans, alfalfa)

Serial plot No.	Soil treatment	Series 100 Potatoes	Series 200 Alfalfa ¹	Series 300 Corn	Series 400 Soybeans
43W	Manure, rock phosphate.....	30.9	....	65.8	33.7
46W	Manure, rock phosphate.....	49.6	(5.43)	69.4	28.8
49W	Manure.....	56.1	(4.90)	68.0	32.9
50W	Manure.....	58.3	(4.56)	66.2	43.4
53W	Manure, rock phosphate.....	61.4	....	72.6	32.1
56W	Manure, rock phosphate.....	57.2	(4.93)	75.3	32.3
43E	Manure, lime, rock phosphate.....	26.2	....	75.1	33.7
46E	Manure, lime, rock phosphate.....	42.6	(5.13)	75.1	32.4
49E	Manure.....	59.9	(4.06)	75.3	35.3
50E	Manure.....	61.1	(4.84)	74.4	39.0
53E	Manure, lime, rock phosphate.....	53.4	....	79.5	32.1
56E	Manure, lime, rock phosphate.....	53.6	(4.47)	83.3	31.3

¹Alfalfa on Plots 243 and 253 was cut at different stages of growth than on the other plots; hence the yields are not comparable.

TABLE 38.—URBANA, SOUTH FARM: SOUTHWEST ROTATION
(Corn, oats, clover, wheat)

Serial plot No.	Soil treatment	Series 100 Oats	Series 200 Clover	Series 300 Wheat	Series 400 Corn
63W	Residues, rock phosphate.....	39.6	.60	50.4	71.1
66W	Residues, rock phosphate.....	40.5	.33	49.2	73.0
69W	Residues.....	24.3	.43	43.5	64.0
70W	Manure.....	36.1	(.03)	46.0	69.0
73W	Manure, rock phosphate.....	43.1	(.21)	48.9	71.8
76W	Manure, rock phosphate.....	41.1	(.21)	46.1	67.6
63E	Residues, lime, rock phosphate.....	45.1	.61	41.3	66.8
66E	Residues, lime, rock phosphate.....	37.6	.43	46.3	68.3
69E	Residues.....	26.5	.52	37.2	52.2
70E	Manure.....	33.7	(.10)	38.5	64.9
73E	Manure, lime, rock phosphate.....	40.5	(.23)	37.8	68.0
76E	Manure, lime, rock phosphate.....	43.5	(.23)	35.2	75.0

TABLE 39.—URBANA, SOUTH FARM: NORTH CENTRAL ROTATION
(Corn, corn, oats, clover)

Serial plot No.	Soil treatment	Series 500 Corn	Series 600 Oats	Series 700 Clover	Series 800 Corn
43	Residues, rock phosphate.....	57.6	39.3	.52	58.8
46	Residues, rock phosphate.....	58.9	36.5	.32	60.5
49	Residues.....	46.4	18.6	.43	51.9
50	Manure.....	57.6	28.1	.44	58.4
53	Manure, rock phosphate.....	61.0	44.5	.49	68.1
56	Manure, rock phosphate.....	59.3	43.2	.45	60.3

TABLE 40.—URBANA, SOUTH FARM: SOUTH CENTRAL ROTATION
(Corn, corn, corn, soybeans)

Serial plot No.	Soil treatment	Series 500 Corn	Series 600 Corn	Series 700 Soybeans	Series 800 Corn
63	Residues, rock phosphate.....	47.7	46.4	33.2	58.5
66	Residues, rock phosphate.....	48.6	40.5	31.1	64.1
69	Residues.....	42.0	41.1	23.3	56.2
70	Manure.....	48.1	47.1	(1.83)	57.6
73	Manure, rock phosphate.....	54.7	44.5	(2.18)	58.5
76	Manure, rock phosphate.....	54.8	42.2	(2.14)	54.4

TABLE 41.—WEST SALEM FIELD

Serial plot No.	Soil treatment	Series 100 Corn	Series 200 Wheat ²	Series 300 Sweet clover	Series ³ 400 Oats	Series ³ 500 Soybeans
1	None	4.4	20.6	1.19	3.3	(.18)
2	Manure, lime ¹	14.9	20.4	2.05	23.4	(.45)
3	Manure, lime	15.1	15.8	3.83	33.3	(.52)
4	Manure, lime, rock phosphate ..	15.8	30.7	2.78	36.7	(.55)
5	Lime ¹	5.8	11.0	.17	12.2	(.38)
6	Residues, lime ¹	9.2	13.4	.75	18.6	(.40)
7	Residues, lime	9.3	20.2	3.00	29.4	(.48)
8	Residues, lime, rock phosphate.	10.7	35.4	3.08	37.5	(.55)
9	Res., lime, rock phos., kainit . . .	16.9	39.8	4.50	46.1	(.55)
10	None	7.4	9.6	0.00	....	....

¹Initial application of lime only. ²Plots 1 and 2 receive the overwash from Plots 3 and 4. ³There are only 9 plots in Series 400 and 500.

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